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EXAMINER

OSELE, MARK A

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1734

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/613,008

Applicant(s)

ONOSHIRO ET AL.

Examiner

Mark A Osele

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Gfeller et al. and Miller. On pages 2-5 of the instant specification applicant admits that it has been known to remove electronic parts from a carrier tape and mount them to a circuit board using an electronic parts punching machine comprising a tape feeding station, a tape punching station and a tape collecting station.

In order to permit an interrupted punching operations at the tape punching station even after punching out the last electronic part on one tape, it has been the general practice to replace the tape supply reel currently used at the tape feeding station by a fresh tape supply reel, in the manner as follows. As soon as the last electronic circuitry part on the tape from the first supply reel is punched out at the tape punching station, the tape is fed forward until the tail end of its rear leader tape is displaced to a position forward of the tape punching station. Then, a fresh supply reel is set at the tape feeding station to replace the empty or consumed supply reel. The admitted prior art fails to suggest automatic splicing of the two tape supply reels.

Gfeller et al. teaches that in an electronic component supply apparatus a sensor determines when the last electronic component on a particular reel is nearing the dispensing station. A new reel is then spliced to the depleting reel such that all of the components on the depleting reel are used and there is no down time for threading a new tape supply into the feed apparatus (column 6, lines 9-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a sensor for determining when a supply tape is nearing completion so a splice can be performed in the method of the admitted prior art because Gfeller et al. teaches that this removes down time and increases efficiency.

Miller shows automatic splicing of a supply tape upon sensing the last article on the tape has been reached (column 6, lines 20-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the automatic splicing of Miller in the method of the references as combined because the automatic splicing removes operator time for creating a splice which would be more efficient and accurate. Miller further shows a pair of reel support shafts for the two supply reels during the automatic splicing and reel switch over (See Fig. 1).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Gfeller et al. and Miller as applied to claim 1 above, and further in view of European Patent Publication 790205 (Dobesch). The references as combined

show all the claimed limitations except for cutting one of the tapes at the splicing position.

Dobesch shows a rear leader tape, 20, which attaches the supply tape, 12, to the reel core, 22 (Fig. 1b) and further shows that this tape is cut off before splicing to the leading end of the replacement supply tape (Fig. 1c). It would have been obvious to one of ordinary skill in the art at the time the invention was made to cut off the trailing end of the depleting supply tape in the method of the references as combined because Dobesch teaches that rear leader tapes are commonly used to hold a supply tape to a reel and this tape must be removed prior to splicing. In addition, Dobesch shows that cutting off of the end portion of the depleting tape maintains the space between objects to be dispensed even at the splice location.

In addition, it is conventional for an operator to remove a consumed reel from the apparatus and replace it with a full reel to continue the splicing sequence.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Gfeller et al., Miller, and European Patent Publication 790205 (Dobesch) as applied to claim 5 above, and further in view of Asai et al. The references as combined show all of the instantly claimed features except for stapling of the webs at the splice.

Asai et al. shows that a tape connecting staple, 40, is effective in joining component carrier tapes, 20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the staple of Asai et al. in the method of

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the references as combined because Asai et al. teaches that this connector joins the two supply tapes with great strength regardless of what type of tape it is (column 3, lines 1-14).

### ***Specification***

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because it is longer than 150 words.

Correction is required. See MPEP § 608.01(b).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Keene et al., Mattei et al., Bohn et al., Bishop, and Hinton each show splicing of article supplying tapes with registration of the articles being fed to maintain spacing between articles.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A Osele whose telephone number is 571-272-1235. The examiner can normally be reached on Mon-Fri 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**MARK A. OSELE**  
**PRIMARY EXAMINER**

June 26, 2004